



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,869	10/12/2006	Robert Schroeck	WAS0795PUSA	5862
22045 7590 01/19/2010 BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075				
EXAMINER JANCA, ANDREW JOSEPH				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
01/19/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/599,869

Applicant(s)

SCHROECK ET AL.

Examiner

Andrew Janca

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 5-6 and 12 are rejected under 35 USC 103(a) as unpatentable over US 5,563,189 to Hosokawa et al in view of EP 0915122 A1 by Joffre et al.

5. With regard to claim 5, Hosokawa teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (2:28-31), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed; b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer 10, and optionally admixing further components (A), (B), and (C); c) establishing a set point for pressure for emulsion exiting the first high shear mixture and the second shear mixer (7:42-54), measuring pressure of the emulsion exiting the first high shear mixer and the second high speed mixer (7:42-54), and adjusting process parameters to maintain the pressures of the emulsion exiting the first and second high speed mixers at their respective set points (5:12-17; 7:42-54; figure 1). Hosokawa do not explicitly teach establishing a set point for temperature for emulsion exiting the first high shear mixture and the second shear mixer, measuring the temperatures of the emulsion exiting the first high shear mixer and the second high speed mixer, or adjusting process parameters to maintain the temperature of the emulsion exiting the first and second high speed mixers at their respective set points. However, Joffe teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0001), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer (the "second mixer" of para 0036: the "first mixer" of Joffe is to form a premix, para 0035) in which a highly viscous silicone emulsion is formed; b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer (the optional but

preferred "third mixer" of para 0038), and optionally admixing further components (A), (B), and (C); c) establishing a set point for temperature for emulsion exiting the first high shear mixture (para 0037) and the second shear mixer (para 0042), measuring the temperatures of the emulsion exiting the second high speed mixer (para 0042), and adjusting process parameters to maintain the temperature of the emulsion exiting the first and second high speed mixers at their respective set points (paras 0036-0037). It would have been obvious to one of ordinary skill to establish a set point for the temperatures of the emulsion exiting the first and second high shear mixers, and measuring the temperatures and adjusting process parameters to maintain the temperatures at their set points of the emulsion exiting the first and second high shear mixers of Hosokawa, as do Joffre: the motivation would have been that the temperature conditions under which the silicone emulsion is formed affect the properties of the product (Joffre paras 0003-0004). Joffre teach that the temperature of the emulsion inside and hence immediately exiting the first high shear mixture is a critical variable, to be maintained at less than 60 C and preferably at less than 40 C by adjusting process parameters (paras 0036-0037), but do not explicitly teach measuring the temperature of the emulsion exiting the first high shear mixer. However, it would have been obvious to measure the temperature of the emulsion at this point: the motivation would have been to allow the temperature of the emulsion to be accurately adjusted.

6. The additional elements of claim 6 are obvious over Hosokawa. Hosokawa teach that the pressure measured after the second high-shear mixer is one of the process parameters to be monitored (7:50-54), that the intent of the method is to

maintain the pressures at all points below a desired minimum range (5:12-17), and that the pressure in the apparatus may be regulated and adjusted (5:14-18): it would have been obvious to adjust the pressure measured after the second high-shear mixer, being a critical operating parameter, by adjusting the pressure in the apparatus.

7. The additional elements of claim 12, including that the organosilicon compound (A) is liquid at 25.degree. C. and has a viscosity of from 0.5 to 500,000 mPa.s., are taught by Joffre (para 0010).

8. Claims 7-8 are rejected under 35 USC 103(a) as unpatentable over US 5,563,189 to Hosokawa et al in view of EP 0915122 A1 by Joffre et al as applied to claims 5 and 6 above, and further in view of US 5,296,166 to Leong. Hosokawa teach that pressure is a critical process parameter desirable of regulation in the preparation of organosilicon oil-in-water emulsions, and Joffre teach that regulating the speed of the high shear mixer is a means of adjusting the temperature of the emulsion (para 0037), but neither teach adjusting the pressure by regulating the speed of the high speed mixer. However, Leong teaches that it is well known in the art of preparing organosilicon oil-in-water emulsions (1:10-13, 10:15-34) that the speed of shearing mixers is a significant factor in determining not just the temperature but the pressure of the stirred emulsions, and that hence the shearing speed is a variable necessary of adjustment in order to regulate the desired operating temperature and pressure (2:21-3:45). It would have been obvious to regulate the pressure of the emulsion by regulating the speed of the high shear mixer: the motivation would have been that when put in use as a desirable means of adjusting one process variable, temperature (Joffre

0037), regulating the shearing speed of the mixer up or down will necessary adjust the other, pressure (Leong 2:21-3:45).

9. Claims 9-10 are rejected under 35 USC 103(a) as unpatentable over US 5,563,189 to Hosokawa et al in view of EP 0915122 A1 by Joffre et al as applied to claims 5 and 6 above, and further in view of WO 02/42360 A2 by Schirosi et al. Joffre teach that the temperature may be regulated by adjusting the speed of the first mixer (para 0037), but do not teach that the temperature may be regulated by adjusting the speed of the second mixer. However, given that Joffre teach that the temperature of the emulsion exiting the second mixer like the temperature of the emulsion exiting the first mixer is a process parameter to be regulated by operation of the apparatus (para 0042), and that the second mixer should be a similar device with similar capabilities as the first mixer (paras 0037-0038), it would have been obvious to one of ordinary skill to regulate the temperature by adjusting the speed of the second mixer as it may be regulated by adjusting the speed of the first mixer. It has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new and unexpected results: see *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). Joffre do not explicitly teach that the temperature may also be regulated by adjusting the temperature of the raw materials. However, Schirosi teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0007), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed (paras 0025-0026); b) feeding the highly viscous silicone emulsion

from a) to a second high-shear mixer 15 (para 0030), and optionally admixing further components (A), (B), and (C) (para 0031); c) establishing a set point for pressure for emulsion entering the first high shear mixer (paras 0027-0028), measuring pressure of the emulsion entering the first high shear mixer (paras 0028-0029), and adjusting process parameters to maintain the pressures of the emulsion entering the first high speed mixer at its respective set point (para 0029), and the temperature of the emulsion (para 0038); and further teach that the temperature of the emulsion may be regulated by adjusting the temperature of the raw materials (para 0038). It would have been obvious to one of ordinary skill to regulate the temperature of the emulsion of Joffre and Hosokawa by adjusting the temperature of the raw materials, as do Schirosi: the motivation would have been to prevent unwanted reactions in the line (Schirosi para 0038).

10. Claim 11 is rejected under 35 USC 103(a) as unpatentable over US 5,563,189 to Hosokawa et al in view of EP 0915122 A1 by Joffre et al and further in view of US 5,296,166 to Leong as applied to claim 7 above, and further in view of WO 02/42360 A2 by Schirosi et al. Joffre teach that the temperature may be regulated by adjusting the speed of the first mixer (para 0037), but do not teach that the temperature may be regulated by adjusting the speed of the second mixer. However, given that Joffre teach that the temperature of the emulsion exiting the second mixer like the temperature of the emulsion exiting the first mixer is a process parameter to be regulated by operation of the apparatus (para 0042), and that the second mixer should be a similar device with similar capabilities as the first mixer (paras 0037-0038), it would have been obvious to

one of ordinary skill to regulate the temperature by adjusting the speed of the second mixer as it may be regulated by adjusting the speed of the first mixer. It has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new and unexpected results: see *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). Joffe do not explicitly teach that the temperature may also be regulated by adjusting the temperature of the raw materials. However, Schirosi teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0007), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed (paras 0025-0026); b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer 15 (para 0030), and optionally admixing further components (A), (B), and (C) (para 0031); c) establishing a set point for pressure for emulsion entering the first high shear mixer (paras 0027-0028), measuring pressure of the emulsion entering the first high shear mixer (paras 0028-0029), and adjusting process parameters to maintain the pressures of the emulsion entering the first high speed mixer at its respective set point (para 0029), and the temperature of the emulsion (para 0038); and further teach that the temperature of the emulsion may be regulated by adjusting the temperature of the raw materials (para 0038). It would have been obvious to one of ordinary skill to regulate the temperature of the emulsion of Joffe and Hosokawa by adjusting the temperature of the raw materials, as do Schirosi: the motivation would have been to prevent unwanted reactions in the line (Schirosi para 0038).

11. Claims 5-6 and 12 are rejected under 35 USC 103(a) as unpatentable over EP 0915122 A1 by Joffre et al in view of US 5,563,189 to Hosokawa et al.
12. With regard to claim 5, Joffre teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0001), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer (the "second mixer" of para 0036: the "first mixer" of Joffre is to form a premix, para 0035) in which a highly viscous silicone emulsion is formed; b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer (the optional but preferred "third mixer" of para 0038), and optionally admixing further components (A), (B), and (C); c) establishing a set point for temperature for emulsion exiting the first high shear mixture (para 0037) and the second shear mixer (para 0042), measuring the temperatures of the emulsion exiting the second high speed mixer (para 0042), and adjusting process parameters to maintain the temperature of the emulsion exiting the first and second high speed mixers at their respective set points (paras 0036-0037). Joffre teach that the temperature of the emulsion inside and hence immediately exiting the first high shear mixture is a critical variable, to be maintained at less than 60 C and preferably at less than 40 C by adjusting process parameters (paras 0036-0037), but do not explicitly teach measuring the temperature of the emulsion exiting the first high shear mixer. However, it would have been obvious to measure the temperature of the emulsion at this point: the motivation would have been to allow the temperature of the emulsion to be accurately

adjusted. Joffe do not explicitly teach establishing a set point for pressure for emulsion exiting the first high shear mixture and the second shear mixer, measuring the pressures of the emulsion exiting the first high shear mixer and the second high speed mixer, or adjusting process parameters to maintain the pressures of the emulsion exiting the first and second high speed mixers at their respective set points. However, Hosokawa teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (2:28-31), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed; b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer 10, and optionally admixing further components (A), (B), and (C); c) establishing a set point for pressure for emulsion exiting the first high shear mixture and the second shear mixer (7:42-54), measuring pressure of the emulsion exiting the first high shear mixer and the second high speed mixer (7:42-54), and adjusting process parameters to maintain the pressures of the emulsion exiting the first and second high speed mixers at their respective set points (5:12-17; 7:42-54; figure 1). It would have been obvious to one of ordinary skill to establish a set point for the pressures of the emulsion exiting the first and second high shear mixers, and measuring the pressures and adjusting process parameters to maintain the pressures at their set points of the emulsion exiting the first and second high shear mixers of Joffe, as do Hosokawa: the motivation would have been that keeping the emulsion at monitored low pressures at all points reduces the

operating costs of the apparatus, which would otherwise require expensive structural reinforcement (Hosokawa 1:40-54).

13. The additional elements of claim 6 are obvious over Hosokawa. Hosokawa teach that the pressure measured after the second high-shear mixer is one of the process parameters to be monitored (7:50-54), that the intent of the method is to maintain the pressures at all points below a desired minimum range (5:12-17), and that the pressure in the apparatus may be regulated and adjusted (5:14-18); it would have been obvious to adjust the pressure measured after the second high-shear mixer, being a critical operating parameter, by adjusting the pressure in the apparatus.

14. The additional elements of claim 12, including that the organosilicon compound (A) is liquid at 25.degree. C. and has a viscosity of from 0.5 to 500,000 mPa.s., are taught by Joffre (para 0010).

15. Claims 7-8 are rejected under 35 USC 103(a) as unpatentable over EP 0915122 A1 by Joffre et al in view of US 5,563,189 to Hosokawa et al as applied to claims 5 and 6 above, and further in view of US 5,296,166 to Leong. Hosokawa teach that pressure is a critical process parameter desirable of regulation in the preparation of organosilicon oil-in-water emulsions, and Joffre teach that regulating the speed of the high shear mixer is a means of adjusting the temperature of the emulsion (para 0037), but neither teach adjusting the pressure by regulating the speed of the high speed mixer. However, Leong teaches that it is well known in the art of preparing organosilicon oil-in-water emulsions (1:10-13, 10:15-34) that the speed of shearing mixers is a significant factor in determining not just the temperature but the pressure of the stirred emulsions, and that

hence the shearing speed is a variable necessary of adjustment in order to regulate the desired operating temperature and pressure (2:21-3:45). It would have been obvious to regulate the pressure of the emulsion by regulating the speed of the high shear mixer: the motivation would have been that when put in use as a desirable means of adjusting one process variable, temperature (Joffre 0037), regulating the shearing speed of the mixer up or down will necessary adjust the other, pressure (Leong 2:21-3:45).

16. Claims 9-10 are rejected under 35 USC 103(a) as unpatentable over EP 0915122 A1 by Joffre et al in view of US 5,563,189 to Hosokawa et al as applied to claims 5 and 6 above, and further in view of WO 02/42360 A2 by Schirosi et al. Joffre teach that the temperature may be regulated by adjusting the speed of the first mixer (para 0037), but do not teach that the temperature may be regulated by adjusting the speed of the second mixer. However, given that Joffre teach that the temperature of the emulsion exiting the second mixer like the temperature of the emulsion exiting the first mixer is a process parameter to be regulated by operation of the apparatus (para 0042), and that the second mixer should be a similar device with similar capabilities as the first mixer (paras 0037-0038), it would have been obvious to one of ordinary skill to regulate the temperature by adjusting the speed of the second mixer as it may be regulated by adjusting the speed of the first mixer. It has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new and unexpected results: see *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). Joffre do not explicitly teach that the temperature may also be regulated by adjusting the temperature of the raw materials. However, Schirosi teach a process for the continuous preparation

of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0007), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed (paras 0025-0026); b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer 15 (para 0030), and optionally admixing further components (A), (B), and (C) (para 0031); c) establishing a set point for pressure for emulsion entering the first high shear mixer (paras 0027-0028), measuring pressure of the emulsion entering the first high shear mixer (paras 0028-0029), and adjusting process parameters to maintain the pressures of the emulsion entering the first high speed mixer at its respective set point (para 0029), and the temperature of the emulsion (para 0038); and further teach that the temperature of the emulsion may be regulated by adjusting the temperature of the raw materials (para 0038). It would have been obvious to one of ordinary skill to regulate the temperature of the emulsion of Joffre and Hosokawa by adjusting the temperature of the raw materials, as do Schirosi: the motivation would have been to prevent unwanted reactions in the line (Schirosi para 0038).

17. Claim 11 is rejected under 35 USC 103(a) as unpatentable over EP 0915122 A1 by Joffre et al in view of US 5,563,189 to Hosokawa et al and further in view of US 5,296,166 to Leong as applied to claim 7 above, and further in view of WO 02/42360 A2 by Schirosi et al. Joffre teach that the temperature may be regulated by adjusting the speed of the first mixer (para 0037), but do not teach that the temperature may be regulated by adjusting the speed of the second mixer. However, given that Joffre teach

that the temperature of the emulsion exiting the second mixer like the temperature of the emulsion exiting the first mixer is a process parameter to be regulated by operation of the apparatus (para 0042), and that the second mixer should be a similar device with similar capabilities as the first mixer (paras 0037-0038), it would have been obvious to one of ordinary skill to regulate the temperature by adjusting the speed of the second mixer as it may be regulated by adjusting the speed of the first mixer. It has been held that selection of any order of performing process steps is *prima facie* obvious in the absence of new and unexpected results: see *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). Joffe do not explicitly teach that the temperature may also be regulated by adjusting the temperature of the raw materials. However, Schirosi teach a process for the continuous preparation of aqueous emulsions comprising organosilicon compound(s) (A), emulsifier(s) (B) and water (C) (para 0007), comprising a) feeding at least a portion of the (A), (B), and (C) components continuously to a first high-shear mixer 9 in which a highly viscous silicone emulsion is formed (paras 0025-0026); b) feeding the highly viscous silicone emulsion from a) to a second high-shear mixer 15 (para 0030), and optionally admixing further components (A), (B), and (C) (para 0031); c) establishing a set point for pressure for emulsion entering the first high shear mixer (paras 0027-0028), measuring pressure of the emulsion entering the first high shear mixer (paras 0028-0029), and adjusting process parameters to maintain the pressures of the emulsion entering the first high speed mixer at its respective set point (para 0029), and the temperature of the emulsion (para 0038); and further teach that the temperature of the emulsion may be regulated by adjusting the temperature of the raw

materials (para 0038). It would have been obvious to one of ordinary skill to regulate the temperature of the emulsion of Joffre and Hosokawa by adjusting the temperature of the raw materials, as do Schirosi: the motivation would have been to prevent unwanted reactions in the line (Schirosi para 0038).

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Janca whose telephone number is (571) 270-5550. The examiner can normally be reached on M-Th 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on (571) 272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJJ

/DAVID L. SORKIN/
Primary Examiner, Art Unit 1797